

acreage reduction programs, target prices have the potential to encourage production on most of the cotton acreage base.

Prior to the 1964 Act, the U.S. loan rate in effect determined not only the U.S. farm price, but world market prices as well. Since 1966, the U.S. loan rate has had little direct effect on U.S. market prices or world prices. Because loan rates have been declining during the past several years, market prices have fluctuated on either side of the loan rate.

There is little doubt that most cotton producers benefited from participation in the acreage reduction programs during 1982-88. Large deficiency payments were made during those years and indirect benefits were received from the higher market prices induced by acreage reduction.

In addition to the level of the target price, the acreage base and production level on which the target price is applied also affect planting decisions. Providing target price protection to

Table 14--Nominal and deflated cotton prices and payments per pound produced, 1970-88

Crop year	Market price		Average direct payments		Total	
	Nominal	Real <u>1/</u>	Nominal	Real <u>1/</u>	Nominal	Real <u>1/</u>
	<u>Cents per pound</u>					
1970	22.8	54.3	18.8	44.8	41.6	99.1
1971	28.1	63.3	16.4	36.9	44.5	100.2
1972	27.2	58.5	12.4	26.7	39.6	85.2
1973	44.4	89.7	11.4	23.0	55.8	112.7
1974	42.7	79.1	2.3	4.3	45.0	83.4
1975	51.1	86.2	3.0	5.1	54.1	91.3
1976	63.8	101.1	1.9	3.0	65.7	104.1
1977	52.1	77.4	1.0	1.5	53.1	78.9
1978	58.1	80.5	4.4	6.1	62.5	86.6
1979	62.3	79.3	1.6	2.0	63.9	81.3
1980	74.4	86.8	5.7	6.7	80.1	93.5
1981	54.0	57.4	7.4	7.9	61.4	65.3
1982	59.1	9.1	11.5	11.5	70.6	70.6
1983	66.0	63.5	41.5	39.9	107.5	103.4
1984	57.5	53.4	10.6	9.8	68.1	63.2
1985	56.1	50.6	16.5	14.9	72.6	65.5
1986	51.5	45.2	30.2	26.5	81.7	71.7
1987	63.7	54.0	13.7	11.6	77.4	65.6
1988	<u>2/</u> 54.8	45.3	15.9	13.1	70.7	58.4

1/ Nominal value divided by the gross national product price deflator (1982 = 100).

2/ Average market price for Aug. 1-Mar. 31, 1989.

normal production from current plantings has caused the target price to become much more important in crop production decisions. The cotton program's effective acreage base averaged 14.5 million acres during 1986-88, exceeding average plantings of about 11 million acres for the same period. This difference, however, is largely attributable to the acreage reduction program and the conservation reserve program.

The cotton programs during the past 50 years have shifted some of the production and price risk from cotton producers to the taxpayer. During the first 30 years of farm programs, acreage allotments and marketing quotas, combined with high price supports, provided some price and income stability, but also provided an incentive for foreign production of cotton and some loss of markets to manmade fibers. Higher domestic prices encouraged overproduction in the United States, leading to excess stocks and subsequent production controls. Acreage controls were implemented during many of these years to prevent the accumulation of excessive stocks. During periods when marketing quotas were not in effect (1936-37, 1943-49, and 1951-53), production expanded and carryover increased. Cotton programs since the mid-1960's have placed more reliance on market signals to guide farmers' production decisions, with lower price supports combined with direct payments to support incomes of participating farmers. With the exception of 5 marketing years (1981/82, 1982/83, 1985/86, 1987/88, and 1988/89), stocks have been maintained at relatively low levels since 1970/71.

#### Consumers

The cotton program has had little effect on retail prices of cotton textile products because of the wide farm-to-retail price spread and the small amount of cotton consumed per item. In

Table 15--Average cotton acreage, production, and yield per harvested acre, selected periods

Period	Planted	Harvested	Production	Weighted average yield
	----- <u>1,000 acres</u> -----		<u>1,000 bales</u>	<u>Pounds</u>
1948-53	25,772	24,172	14,412	286
1954-59	16,214	15,330	13,008	407
1960-65	15,373	14,643	14,687	481
1966-70	10,833	9,912	9,551	462
1971-73	12,850	12,048	12,294	490
1974-77	12,050	11,316	11,123	472
1978-81	13,980	12,998	12,969	479
1982-85	10,201	9,348	11,418	586
1986-88	10,841	10,003	13,026	625

1988, domestic consumption of cotton per capita was estimated at 21.4 pounds, down from 23.9 pounds in 1987. The farm value of this per capita quantity was only \$16.15, compared with \$18.15 a year earlier. The cotton programs of recent years have featured direct payments to support farm incomes. Thus, most of the program costs have been borne directly by the taxpayers rather than by high cost of textiles paid by consumers.

Price increases at the farm level may not be reflected as higher retail values in the short run because of the highly competitive nature of the cotton textile industry. The impact of raw cotton prices (cost to mills) on retail values depends partly on the quantity of cotton contained in the finished product and the type and amount of processing required. As an illustration, about 3/4 pound of raw cotton is required to produce a typical business shirt or a bath towel, compared with about 2 pounds in denim jeans. The cost of raw cotton as a share of the estimated 1987 retail value was only about 3 percent for a shirt, 12 percent for a bath towel, and about 9 percent for denim jeans. Thus, a 10-percent increase in farm price may increase the retail price of a shirt by only less than 1 percent and the price of bath towels and jeans about 1 percent.

### **Taxpayers**

The cotton program's net expenditure for fiscal year 1988 was about \$666 million or about 5.3 percent of total public expenditures on all commodity price supports and related programs. Since 1980, cotton program costs have varied from a low of \$64.3 million in 1980 to a high of \$2.1 billion in 1986 (table 16). The 1986 program cost was a record high in nominal terms, whereas in real terms, 1970 was the most recent year when net expenditures surpassed those in 1986. These expenditures, or budget outlays, are borne by taxpayers and represent a direct transfer of income from taxpayers to the farming sector. Appendix table 4 provides program cost detail for each fiscal year since 1970.

The \$666 million outlay in fiscal year 1988 represented a \$5.71 cost to each taxpayer, while the \$2.1 billion outlay in 1986 represented a \$19.24 cost per taxpayer (table 16). In comparison, the farm value was estimated at about \$3.9 billion and \$2.4 billion for crop years 1988 and 1986. Cotton program costs were comparatively low during the 1975-81 years, but since 1982, costs have exceeded \$1.1 billion, except in fiscal years 1984 and 1988.

### **Issues**

Cotton policy issues likely to be of concern during deliberations on the 1990 farm bill relate chiefly to insuring competitively priced U.S. cotton, excess supply, and the high Government costs of the program. Recurring issues will concern the need for and the level of acreage and production controls, support prices and incomes, payment limitations, and environmental issues. Cotton

export subsidies and credit, import quotas and tariffs, and trade barriers will also be important issues.

Table 16--Farm-related program costs for upland cotton, 1970-88

Fiscal year	Total cost <u>1/</u>		Cost per taxpayer <u>2/</u>	
	Nominal	Real <u>3/</u>	Nominal	Real <u>3/</u>
	---- <u>Million dollars</u> ----		----- <u>Dollars</u> -----	
1970	891.4	2,122.4	11.03	26.26
1971	603.2	1,358.6	7.42	16.71
1972	760.4	1,635.3	9.06	19.48
1973	824.0	1,664.7	9.49	19.17
1974	724.6	1,341.9	8.19	15.17
1975	232.8	392.6	2.66	4.49
1976	-4.0	-6.3	-.04	-.06
1977	104.3	155.0	1.11	1.65
1978	223.8	310.0	2.29	3.17
1979	141.2	179.6	1.41	1.79
1980	64.3	75.0	.64	.75
1981	335.7	357.1	3.29	3.50
1982	1,189.7	1,189.7	11.76	11.76
1983	1,362.9	1,311.7	13.30	12.80
1984	244.0	226.6	2.29	2.13
1985	1,552.7	1,400.1	14.26	12.86
1986	2,141.9	1,880.5	19.24	16.89
1987	1,785.7	1,517.2	15.64	13.29
1988	665.8	550.2	5.71	4.72

1/ Based on net CCC outlays from appendix table 4. Negative indicates net receipts for that fiscal year.

2/ Net CCC outlays divided by total employment, including resident armed forces.

3/ Nominal values deflated by the gross national product price deflator (1982 = 100).

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## Glossary

Acreage allotment. An individual farm's share of the national acreage that the Secretary of Agriculture determines is needed to produce sufficient supplies of a particular crop. The farm's share is based on its previous production.

Acreage reduction program (ARP). A voluntary land retirement system in which farmers must idle a portion of their base acreage of wheat, feed grains, upland and extra long staple (ELS) cotton, or rice. The base is the average of the acreage planted for harvest and considered to be planted for harvest during a specified preceding period. The latter includes any acreage not planted because of acreage reduction and diversion programs during a period specified by law. Farmers are not given a direct payment for ARP participation, although they must participate to be eligible for benefits like Commodity Credit Corporation loans and deficiency payments. Participating producers are sometimes offered the option of idling additional land under a paid diversion program, which gives them a specific payment for each idled acre. See paid land diversion.

Adjusted world price (AWP). The result of using a formula that adjusts the world price of cotton to U.S. prices. See prices, raw cotton, and world price.

Agricultural Stabilization and Conservation Service (ASCS). The USDA agency that carries out several principal farm commodity programs from appropriated funds, including Commodity Credit Corporation (CCC) program activities.

Bale. A package of compressed cotton lint as it comes from the gin. Including bagging and ties, a bale weighs about 500 pounds, and its dimensions vary depending on the degree of compression, 12-32 pounds per cubic foot. A bale is the form in which cotton moves in domestic and international commerce. However, cotton is bought and sold on a net weight (pound or kilogram) basis. For statistical purposes, cotton is reported in terms of running bales, in 480-pound net weight bales, or in pounds. A running bale is any bale of varying lint weight as it comes from the gin. To maintain comparability, bale weights are commonly converted to 480-pound net weight equivalents.

Basic commodities. Agricultural products, including corn, cotton, peanuts, rice, tobacco, and wheat, that are designated by legislation as price-supported commodities.

Blending. The mixing of other fibers with cotton. The resulting textile product is a compromise of unique properties or characteristics of the fibers in the blend, often providing a superior end product in some uses.

Boll. The seed pod of the cotton plant.

Bonded warehouse. A warehouse owned by persons approved by the U.S. Treasury Department, and under bond or guarantee for the strict observance of the revenue laws; used for storing goods until duties are paid or goods are otherwise released.

Carding. A process in yarn manufacturing by which fibers are sorted, separated, partially aligned, and cleaned of foreign matter.

Cargo Preference Act. A U.S. law which provides that "whenever the United States contracts for, or otherwise obtains for its own account, or furnishes to or for the account of any foreign nation without provision for reimbursement, any equipment, materials or commodities," the United States shall ship in U.S. flag vessels, to the extent that they are available at fair and reasonable rates, at least 50 percent of the gross tonnage involved.

Carryover stocks. The quantity of a commodity which is available for marketing at the beginning of a marketing year or crop year. "Beginning stocks" of cotton are frequently reported for the marketing year beginning August 1. "Ending stocks" reflect supply less disappearance, adjusted for any unaccounted cotton, for the year ending July 31.

Cellulosic fibers. All fiber of plant or vegetable origin. These fibers include natural fibers such as cotton, linen, and jute, and manmade fibers of wood pulp origin, such as rayon and acetate.

Cloth. A textile product obtained by weaving, knitting, braiding, felting, bonding, or fusing of fibers. Cloth is synonymous with "fabric."

Commodity Credit Corporation (CCC). The USDA agency responsible for directing and financing major USDA "action programs," including price support, production stabilization, commodity distribution, and related programs. CCC also directs and finances certain agricultural export activities. CCC activities are implemented by the Agricultural Stabilization and Conservation Service.

Conserving use. An approved cultural practice or use of land authorized by the county Agricultural Stabilization and Conservation Service on cropland required to be diverted under production adjustment or conservation programs.

Corduroy. A pile-filling fabric with ridges of pile running lengthwise, creating a ribbed surface.

Cost, insurance, and freight (c.i.f.). A term usually used in reference to ocean shipping which defines the seller's price to include the cost of goods, marine insurance, and transportation (freight) charges to the point of destination.

Cotton. A soft, white vegetable (cellulosic) fiber obtained from the seed pod of the cotton plant, a member of mallow family

(Gossypium). Cotton is produced in about 75 countries. The two principal types of cotton grown in the United States are upland cotton (Gossypium hirsutum) and American Pima cotton (Gossypium barbadense). Upland cotton is grown throughout the Cotton Belt, accounting for about 99 percent of U.S. cotton production. The types of cotton grown, or once grown, in the United States are as follows:

Upland cotton. The predominant type of cotton grown in the United States and in most major cotton producing countries of the world. The staple length of these fibers ranges from about 3/4 inch to 1-1/4 inch, averaging nearly 1-3/32 inches.

Extra long staple cotton (ELS). Cottons having a staple length of 1-3/8 inches or more, according to the classification used by the International Cotton Advisory Committee. Also characterized by fineness and high fiber strength, contributing to finer and stronger yarns, needed for certain end-uses such as thread and higher valued fabrics. American growths include American Pima and, formerly, Sea Island cotton.

American-Pima cotton. An extra long staple cotton formerly known as American-Egyptian cotton in the United States, grown chiefly in the irrigated valleys of Arizona, New Mexico, and west Texas. Represents only 2 percent of the U.S. cotton crop. Used chiefly for thread and high-valued fabrics and apparel. Came into existence as the Sea Island cotton was becoming extinct in the United States.

Sea Island cotton. An extra long staple cotton first grown in the United States in about 1786 from seed received from the Bahamas Islands. Relatively unimportant as a commercial crop until the 19th century. Produced in the coastal areas of South Carolina, Georgia, and Florida until the early 1920's, when U.S. production virtually ceased because of increasing competition from foreign growths of ELS cotton, the growing American-Egyptian cotton industry in the Western States, and production problems associated with Sea Island cotton. Commonly about 1-1/2 inches in length but ranged up to 2 inches.

Cotton Board (CB). A quasi-governmental organization whose members are appointed by the Secretary of Agriculture from nominees of cotton producer organizations. Established in 1967 by the Cotton Research and Promotion Act, the board receives and disburses grower assessments to finance the Cotton Incorporated program.

Cotton compress. The equipment which forms the ginned raw cotton into a bale. The first compression, primarily to modified flat or universal bale dimensions, is performed at the gin. Further compression of flat or modified flat bales is performed at cotton warehouse locations.

Cotton Council. See National Cotton Council of America.

Cotton Council International (CCI). The overseas operations service of the National Cotton Council of America. Established in 1956, CCI's primary objective is to develop markets for U.S. exports. CCI programs are operated in close cooperation with the Foreign Agricultural Service, USDA, and trade groups in the United States and abroad. Headquartered in Washington, DC.

Cotton count. (1) For yarn, a numbering system based on the number of 840-yard lengths in a pound. The higher the number the finer the yarn. A single strand of #10 yarn is expressed as 10s or 10/1. A 10s yarn has 8,400 yards to the pound; a pound of 20s yarn is 16,800 yards long. (2) For woven cloth, the number of warp ends and filling picks per inch. If a cloth is 68x72, there are 68 ends and 72 picks per inch in the fabric. An end is a warp yarn or thread that runs lengthwise or vertically in cloth. The ends interlace at right angles with filling yarn (picks) to make woven fabric. (3) For knitted fabric, count indicates the number of wales and courses per inch. A course is a crosswise row of loops or stitches, similar to the filling of woven fabric. A wale is a lengthwise series of loops in a knitted fabric.

Cotton exchange. A membership organization which provides facilities where cotton futures contracts are bought and sold. As of 1986, there were two such exchanges: the New York Cotton Exchange and the Chicago Rice and Cotton Exchange. The basis grade for the New York contract is Strict Low Middling 1-1/16-inch cotton; the basis grade for the Chicago contract is Strict Low Middling Light Spotted 31/32-inch cotton, largely produced in Texas and Oklahoma.

Cotton Incorporated (CI). A private corporation established in 1971 as the sales-oriented marketing and research organization representing U.S. cotton growers. CI's objectives are to increase producer's profits and to expand the sale of products containing cotton. Headquartered in New York City.

Cotton quality. Those characteristics of the cotton fiber that affect processing performance and/or the quality of the various end products. While there are numerous factors that affect quality, the seven most important are fiber length, length uniformity, strength, fineness, maturity, color, and trash content. Their relative importance depends upon the product that is to be made and the type of processing equipment that is to be used. The traditional classification system, which relies primarily on human sight and touch, assesses each of these factors except length uniformity and strength. USDA's new, instrument based classification system, which has been gradually introduced over the past decade is scheduled to entirely replace the traditional classification system in 1991, assesses all seven factors.

Cottonseed. The seed of cotton from which the lint has been removed. Cottonseed oil is extracted from the seed through a crushing process. Cottonseed meal and cottonseed hulls,

coproducts from the seed-crushing operation, are used as livestock feed.

Cotton system. A process originally used to manufacture cotton fiber into yarn and now used extensively for producing spun yarns of manmade fibers, including blends. The major manufacturing steps in the cotton system include opening of the fiber bales, picking, carding, drawing, roving, and spinning. The combing step is included after carding when combing yarns are made.

Crop year. The year in which a crop is planted. Also the cotton marketing year, which is the year beginning August 1 and ending July 31.

Cross compliance. When a full cross-compliance program is in effect, a producer participating in one commodity program (wheat, feed grains, cotton, or rice) on a farm must also participate on that farm in any of the other commodity programs. When a limited cross-compliance program is in effect, a producer participating in one commodity program must not plant in excess of the crop acreage base on that farm for any of the other program commodities for which an acreage reduction program is in effect.

Deficiency payment. A direct Government payment to participating producers if farm average prices fall below specified target price levels during the calendar year. Payment rates cannot exceed the difference between target prices and price support loan rate.

Delinting. The process of separating the very short fibers ("linters") remaining on the seed after the longer fiber has been removed in the ginning process.

Denier. A metric system method of measuring fibers. It is the weight in grams of 9,000 meters of the fiber.

Denim. A relatively heavy, yarn-dyed twill fabric traditionally made of cotton with colored warp yarns and undyed fill yarns. Most denim fabric is used to make trousers.

Disappearance. U.S. textile mill raw fiber consumption plus raw fiber exports.

Disaster payments. Government payments to participating producers who are prevented from planting any portion of their permitted acreage under a program, or who suffer low yields, due to weather and related conditions. Starting in 1982, disaster payments, as a rule, were available only to those producers who had no access to Federal crop insurance.

Diversions payments. Government payments made to farmers in some years for not planting a specified portion of crop-acreage base or permitted acreage. A specified acreage is usually diverted to soil conserving uses.

Domestic consumption. U.S. mill raw fiber consumption plus raw fiber equivalent of imported textiles, less raw fiber equivalent of exported textiles.

Durable press. Performance characteristics of treated textile products, mostly apparel. These features generally involve easy care: shape retention, machine washability, tumble-dry, little or no ironing, and the like. Often referred to as "permanent press" or "wash and wear."

End. A warp yarn or thread that runs lengthwise or vertically in the fabric. Ends interlace at right angles with filling yarn (picks) to make woven fabric.

End-use. The final product form in which fibers are consumed, including apparel, household products, and industrial items.

Extra-long staple. See cotton.

Fabric. See cloth.

Face. The side of a fabric which, by reason of weave, finish, or other characteristic, presents a better appearance than the other side, or back.

Fiber. A slender strand of natural or manmade material usually having a length at least 100 times its diameter and characterized by flexibility, cohesiveness, and strength. Several strands may be combined for spinning, weaving, and knitting purposes. Cotton fibers are known as staple fibers since their length varies within a relatively narrow range from about 7/8 inch to 1-3/4 inches. Manmade fiber filaments are often cut to blend or mix with cotton for further processing on the cotton system.

Filament. An individual strand of fiber indefinite in length. Manmade fibers are indefinite in length. Silk is the only natural fiber available in filament form. Silk may run several hundred yards in length.

Filling. An individual yarn which interlaces with warp yarn at right angles in woven fabric. Also known as pick or filling pick. Usually has less twist than warp yarn, which runs lengthwise in the fabric.

Finishing. Those processes through which a fabric passes after being taken from the loom, such as bleaching, dyeing, sizing, lacquering, waterproofing, and removing defects.

Fiscal year. The official Federal Government operating year which begins October 1. The fiscal year is used by program agencies in reporting much of their data on the cotton program.

Food Security Act of 1985 (FSA). The farm act covering the years 1986-90.

Forward contract. Sale of a commodity from a future crop for future delivery. The sale could involve all of the crop from a given contract acreage or, more commonly, a given quantity of specified quality.

Gin. A machine that separates cotton lint from seed and removes most of the trash and foreign matter from the lint. The lint is cleaned, dried, and compressed into bales weighing approximately 500 pounds, including wrapping and ties. There are about 2,000 gins located throughout the Cotton Belt.

Grade. See cotton quality.

Gray or greige fabric. Woven or knitted goods direct from the loom or knitting machine, before they have been given any kind of finishing treatment.

Group "B" mill price. See price, raw cotton.

Hand. A subjective measurement of the reaction obtained from the sense of touch created when handling a fabric, reflecting the many factors which lend individuality and character to a material.

Hard fibers. Comparatively stiff, elongated, woody fibers from the leaves or leaf stems of certain perennial plants. These fibers are generally too coarse and stiff to be woven and are used chiefly in twine, netting, and ropes. Examples are abaca, sisal, and henequen. See soft fibers.

Hedging. The practice of buying or selling futures contracts to offset an existing position in the cash or spot market, thus reducing the risks of unforeseen major price changes.

High density. The compression of a flat, modified flat, or gin standard bale of cotton to high density of about 32 pounds per cubic foot. Previously used for most exported cotton, but currently replaced by universal density compression of about 28 pounds per cubic foot.

HVI (high volume, instrument) testing. A process for determining cotton quality that utilizes instruments rather than sight and touch methods to determine quality characteristics.

Import quota. The maximum amount of a commodity that can be imported in a specified time period. The United States imposes an annual import quota on raw cotton totaling 14.5 million pounds (about 30,000 bales) of short-staple cotton having a length of less than 1-1/8 inches and a quota of 45.7 million pounds (about 95,000 bales) of long staple cotton having a length of 1-1/8 or more inches.

Industrial fabrics. A broad term for fabrics used for nonapparel and nondecorative uses. These uses fall into several classes: (1) a broad group of fabrics employed in industrial processes such as filtering, polishing, and absorption; (2) fabrics

combined with other materials to produce a different type of product such as tires, hose, and electrical machinery parts; and (3) fabrics incorporated directly in a finished product such as tarpaulins, tents, and awnings.

International Cotton Advisory Committee (ICAC). A worldwide association of governments which assembles, analyzes, and publishes data on world production, consumption, stocks, and prices. ICAC closely monitors developments in the world cotton market and promotes intergovernmental cooperation in developing and maintaining a sound world cotton economy. Headquartered in Washington, DC.

International Institute for Cotton (IIC). A nonprofit organization of cotton producing countries founded in 1966. Its purpose is to increase world consumption of cotton and cotton products through utilization research, market research, sales promotion, education, and public relations. Headquartered in Brussels, Belgium.

Inventory (CCC). The quantity of a commodity owned by CCC at any specified time. For example, 8,610 bales of upland cotton were in CCC inventory (owned by CCC) on June 1, 1989.

Knitting. A method of constructing fabric by interlocking a series of loops of one or more yarns. The two major classes of knitting are warp knitting and weft knitting. In warp knitting, yarns run lengthwise in the fabric; in weft knitting, the thread runs back and forth crosswise in a fabric. Warp knit fabrics are flatter, closer, and less elastic than the weft knit. Tricot and milanese are typical warp knit fabrics, while jersey is a typical weft knit.

Lint. Raw cotton that has been separated from the cottonseed by ginning. Lint is the primary product of the cotton plant, while cottonseed and linters are byproducts.

Linters. The fuzz or short fibers which remain attached to the seed after ginning. Linters are usually less than 1/8 inch in length and are removed from the seed by a delinting process.

Long staple cotton. Refers to cotton fibers whose length ranges from 1-1/8 inches to 1-3/8 inches. Fibers whose length is 1-3/8 inches or more are known as extra long staple (ELS).

Loom. A machine which weaves fabric by interlacing a series of lengthwise (vertical) parallel threads, called warp threads, with a series of crosswise (horizontal) parallel threads, called filling threads.

Manmade fibers. Industrially produced fibers, as contrasted with such natural fibers as cotton, wool, and silk. Examples are nylon, rayon, acetate, acrylics, polyester, and olefin.

Marketing loan. A major new provision of the 1985 FSA. It provides for a loan repayment plan if the basic loan rate is not competitive on world markets. Two plans have been used under the 1985 Act. Plan A, which applied in 1986, allowed farmers to repay their loans at a price below the loan rate, thereby encouraging them to redeem the loan and sell their cotton on the open market. Plan B was used in 1987-89. It allowed farmers to repay their loans at a rate tied to the adjusted world price (AWP).

Marketing year. The U.S. cotton marketing year begins August 1 each year and ends on July 31 of the following year.

Micronaire reading. The results of an airflow instrument used to measure cotton fiber fineness and maturity. See cotton quality.

Middling. The designation of a specific grade of cotton (see cotton quality). Grades are determined by the amount of leaf, color, and the ginning preparation of cotton, based on samples from each bale of cotton. Middling is a high-quality white cotton.

Mill (textile). A business concern or factory which manufactures textile products by spinning, weaving, or knitting.

Mill consumption. Quantity of a fiber processed in manufacturing establishments.

Moduled seed cotton. A mechanical module builder compresses cotton into large modules in the field after harvest so that cotton may be held temporarily on the farm or at the gin while awaiting ginning. About 40 percent of U.S. cotton is moduled. This practice is especially important in the Southwest and West.

Motes. Cotton waste material from the cotton ginning process, primarily resulting from the lint cleaning operation. Motes can be reclaimed and sold for use in padding and upholstery filling, nonwovens, and some open-end yarns.

Multifiber Arrangement (MFA). The MFA, negotiated under the auspices of the General Agreement on Tariffs and Trade (GATT), provides a set of complex rules to which signatory nations agree to abide when negotiating bilateral agreements to control trade in cotton, wool, and manmade fiber textiles and apparel. In 1985, the United States had bilateral textile agreements with 36 exporting countries, most of which were negotiated under the rules of the MFA.

Naps. Large tangled masses of fibers that often result from ginning wet cotton. Naps are not as detrimental to quality as neps.

National Cotton Council of America (NCC). The central organization representing all seven sectors, or interests, of the raw cotton industry of the United States: producers, ginners, warehouses, merchants, seed crushers, cooperatives, and

manufacturers (spinners). NCC is a voluntary private industry association established in 1939. NCC programs include technical services, foreign operations, communication services, economic services, and Government liaison. Headquartered in Memphis, TN.

Natural fibers. Fibers of animal (such as wool, hair, or silk), vegetable (such as cotton, flax, or jute), or mineral origin (such as asbestos or glass).

Neps. Very small, snarled masses or clusters of fibers that look like dots or specks in the cotton lint and are difficult to remove. If not removed, they will appear as defects in the yarn and fabrics.

Noncellulosic fibers. Fibers made from petroleum-derived chemicals. The major types are polyester, nylon, acrylic, and polypropylene.

Nonrecourse loan. Delivery to the CCC of the pledged and eligible commodity, or warehouse receipts representing stocks acceptable as to quantity and quality, constitutes repayment of the price support loan in full, regardless of the current market value of the commodity.

Nonwoven fabrics. Material made primarily of randomly arranged textile fibers held together by an applied bonding agent or by fusion.

Offsetting compliance. When an offsetting compliance program is in effect, a producer participating in a diversion or acreage reduction program must not offset that reduction by overplanting the acreage base for that crop on another farm.

Oilseed crops. Major U.S. oilseed crops are soybeans, cottonseed, flaxseed, peanuts, sunflower seed, rapeseed, and sesame seed. Other oils include palm, olive, coconut, tung, and castor.

Open-end spinning. Processing fibers directly from a fiber supply, such as a roving sliver, to the finished yarn, in contrast to ring spinning. Three basic open-end methods are mechanical, electrostatic, and fluid or air. Advantages over ring-spun yarns include increased speed, less labor, and less floor space for equipment.

Operator (farm). The person who is in general control of the farming operation on the farm during the program year.

Paid land diversion. If the Secretary of Agriculture determines that planted acres for a program crop should be reduced, producers may be offered a paid voluntary land diversion. Farmers are given a specific payment per acre to idle a percentage of their crop acreage base.

Parity price. The price which will give agricultural commodities the same relative purchasing power in terms of goods and services